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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,480	03/29/2004	Nicholas M. Valiante JR.	20426.003	9427

27476	7590	12/10/2007
NOVARTIS VACCINES AND DIAGNOSTICS INC.		
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EXAMINER
CHONG, YONG SOO

ART UNIT	PAPER NUMBER
1617	

MAIL DATE	DELIVERY MODE
12/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,480	VALIANTE, NICHOLAS M.	
	Examiner	Art Unit	
	Yong S. Chong	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21,24,26,30 and 36-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21,24,26,30 and 36-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of the Application

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/14/2007 has been entered.

Claim(s) 1-20, 22-23, 25, 27-29, 31-35 have been cancelled. Claim(s) 21, 24, 26, 30, 36-39 are pending. Claim(s) 21, 24, 26, 30, 36-39 have been amended. Claim(s) 21, 24, 26, 30, 36-39 are examined herein.

Applicant's arguments have rendered the 103(a) obviousness rejection of the last Office Action moot, therefore hereby withdrawn. The following new rejection will now apply.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham vs John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim(s) 21, 24, 26, 36-39 are rejected under 35 U.S.C. 103(a) as being obvious over Chamberlain et al. (US Patent Application 2005/0234083 A1) in view of Klaviniskis et al. (US Application 2003/014792 A1) and Ryan (US Patent 4,171,353).

The instant claims are directed to a composition comprising a SMIP compound of formula XXI and an antigen in an oil-in-water emulsion.

Chamberlain et al. teach benzimidazole derivatives for the treatment of hyperproliferative diseases (abstract). For example, an effective amount of a compound of formula I used to treat colon and breast cancers will be in the range of 0.1 to 100 mg/kg body weight per day (section 0413). A preferred compound is N⁵, 1-Dimethyl-N⁵-[2-({4-[(methylsulfonyl)methyl]phenyl}amino)pyrimidin-4-yl]- N²-phenyl-1H-benzimidazole-2,5-diamine trifluoroacetic acid (Example 5, section 0755). Chamberlain et al. teaches that other therapeutic agents may be employed in combination with the disclosed compounds. In particular, in anti-cancer therapy, combination with other chemotherapeutic, hormonal, or antibody agents is envisaged (section 0414). Chamberlain et al. also discloses pharmaceutical oil-in-water emulsions (section 0394).

Examiner respectfully reminds Applicant that the term "vaccine" will be given little patentable weight since it is deemed preamble to the pharmaceutical composition claim.

It is respectfully pointed out that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish from each other. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). Thus, the intended use of a composition claim will be given no patentable weight.

It is further respectfully pointed out that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). See MPEP 2111.02.

Examiner respectfully point out that the limitations in claim 21 regarding "amount effective to enhance the immune response in a subject to the antigen" and in claim 26 regarding "wherein the immune response is the cellular production of one or more cytokines" are inherent since a composition and its properties are inseparable, especially in the absence of a range of dosages of the active agent.

"Products of identical chemical composition can not have mutual exclusive properties." Any properties exhibited by or benefits from are not given any patentable weight over the prior art provided the composition is inherent. A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the disclosed properties are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ 1655, 1658 (Fed. Cir. 1990). See MPEP 2112.01. The burden is shifted to the applicant to show that the prior art product does not inherently possess the same properties as the instantly claimed product.

It is well known in Patent Law that if applicants are claiming a biological pathway as the basis for their invention then a mechanism by which the active ingredient gives the pharmacological effect does not alter the fact that the compound has been previously used to obtain the same pharmacological effects which would result from the claimed method. The patient, condition to be treated, and the effect are the same. An explanation of why that effect occurs does not make novel or even unobvious the treatment of the conditions encompasses by the claims.

However, Chamberlain et al. fail to disclose specifically an antigen.

Klaviniskis et al. disclose a composition comprising spores of *Bacillus subtilis* as a method of stimulating immune responsiveness in a subject. The spores have an adjuvant, immunomodulatory, immune potentiation effect in a subject (abstract). Klaviniskis et al. also disclose that antigens can be used as adjuvant in the present composition (pg. 15, section 0155) to boost an immune response in a mammal

(abstract). In addition to the MF59 adjuvant (pg. 2, section 0014), other antigens that are mentioned to be useful are influenza, hemagglutinin, and neuraminidase (pg. 14, section 0147). Furthermore, Klaviniskis et al. disclose that the present composition can be used to treat colon and breast cancers (pg. 7, section 0082-0083).

Ryan teach that immunological adjuvants most commonly used to enhance immune responses in animals including man are generally divided into two types, one being oil-in-water emulsion type adjuvant. The oil-in-water emulsion type adjuvants provide a slow release of the antigen by virtue of its emulsified state in the oil (col. 1, lines 26-39).

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed invention was made, to combine the antigens as taught by Klaviniskis et al. with the oil-in-water emulsion composition as taught by Chamberlain et al.

A person of ordinary skill in the art would have been motivated to combine the antigens as taught by Klaviniskis et al. with the oil-in-water emulsion composition as taught by Chamberlain et al. because: (1) Chamberlain and Klaviniskis et al. are analogous art since both disclose a method of treating colon and breast cancers; (2) Chamberlain et al. teaches that other therapeutic agents may be employed in anti-cancer therapy; (3) Klaviniskis et al. disclose a composition comprising spores, which contain adjuvants that have an immunomodulatory effect and stimulates immune responsiveness; and (4) Chamberlain et al. discloses oil-in-water emulsion, which are well-known immunological adjuvants that provide slow release of the antigen.

Therefore, one of ordinary skill in the art would have had a reasonable expectancy to successfully make a composition comprising the active agent disclosed by Chamberlain et al. and the antigen and adjuvant disclosed by Klaviniskis, that would effectively treat colon and breast cancers by stimulating the immune system and enhancing an immune response, while providing slow release of the antigen.

"It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... The idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

Claim Objections

Claim 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yong S. Chong whose telephone number is (571)-272-8513. The examiner can normally be reached on M-F, 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SREENI PADMANABHAN can be reached on (571)-272-0629. The fax

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phone number for the organization where this application or proceeding is assigned is
(571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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